

Fig. 1
Prior Art

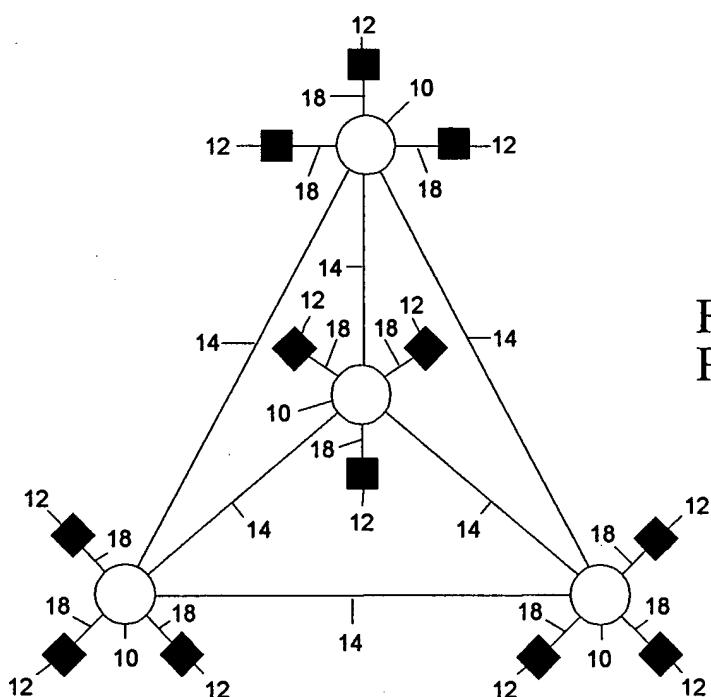


Fig. 2
Prior Art

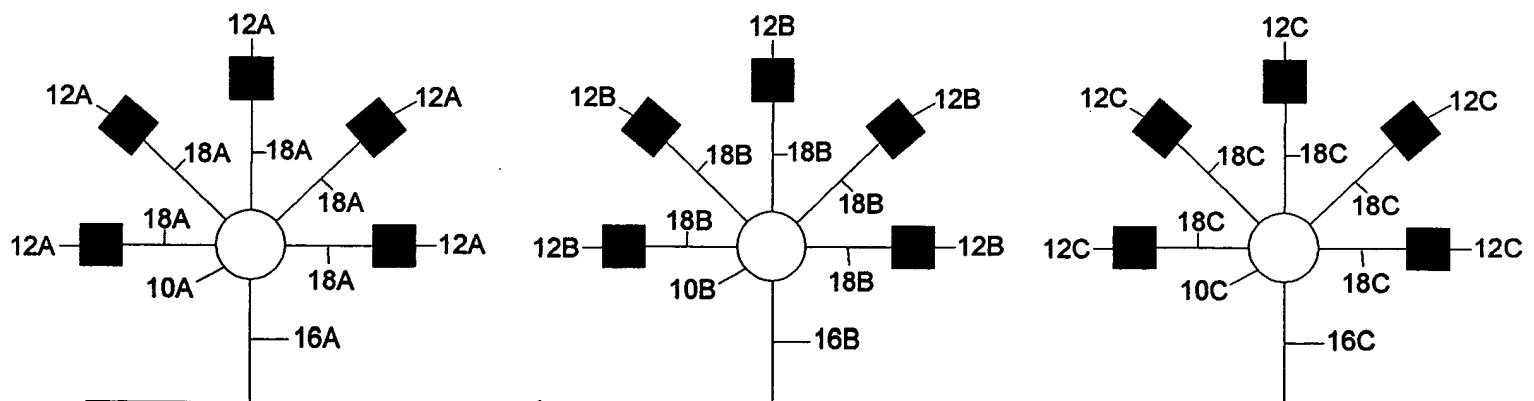


Fig. 3
Prior Art

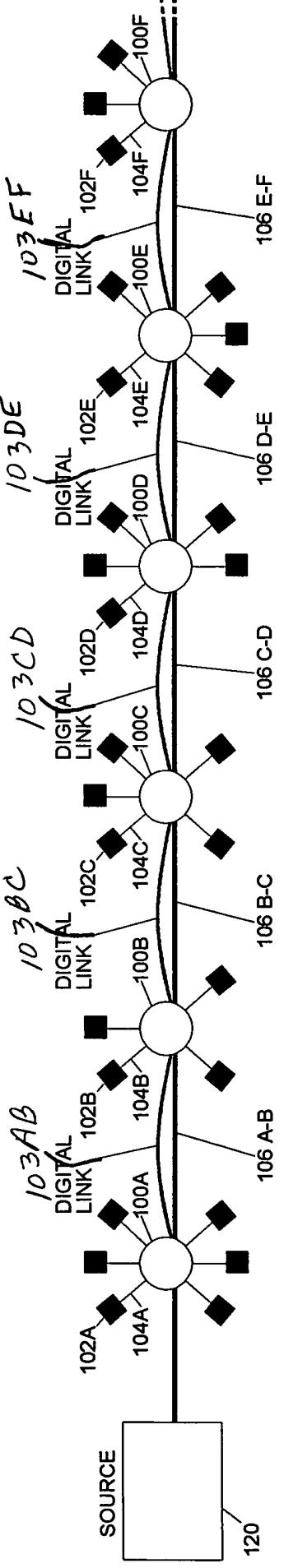
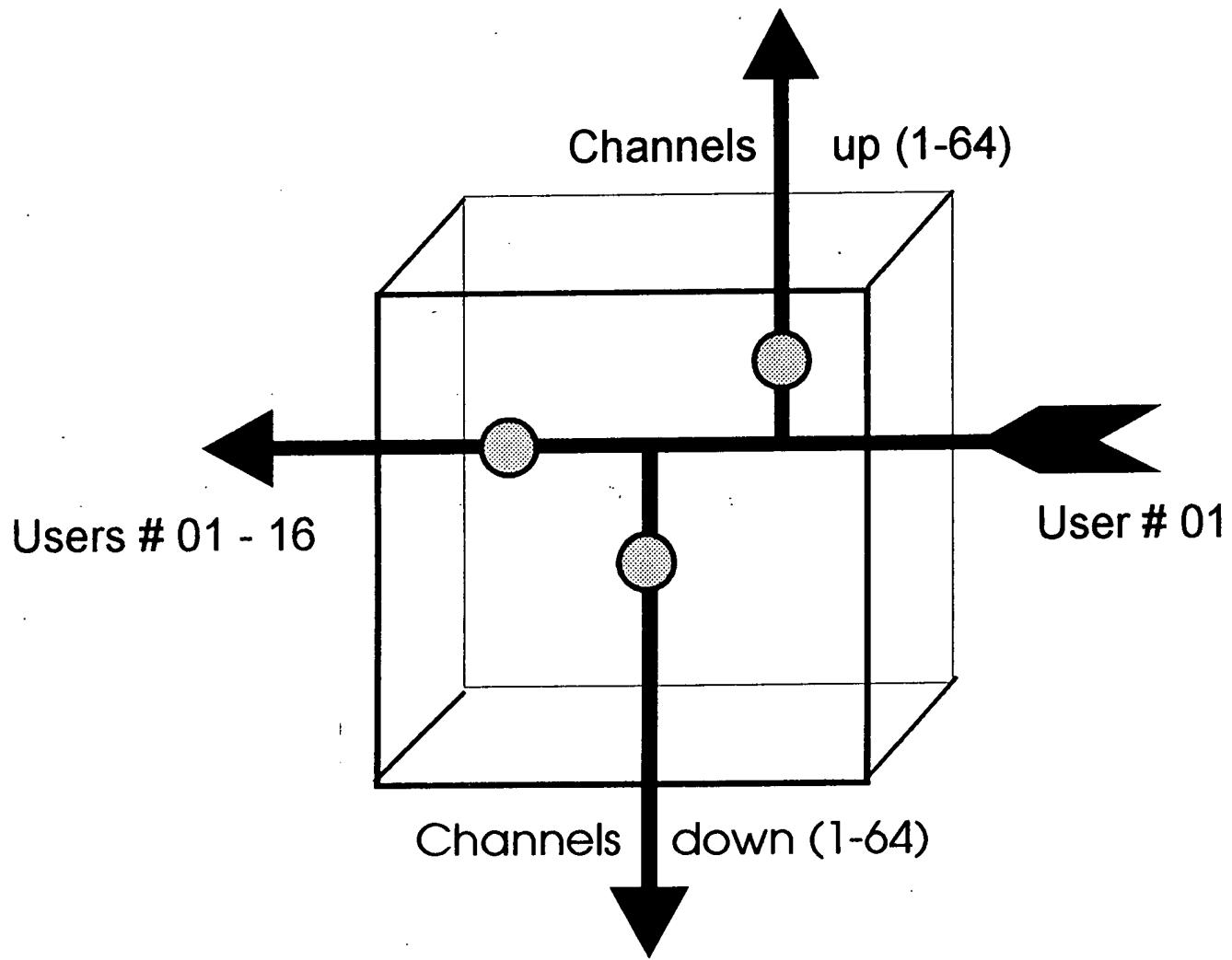


Fig. 4

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Principle of Channel Segmentation (Transmit mode - Tx)



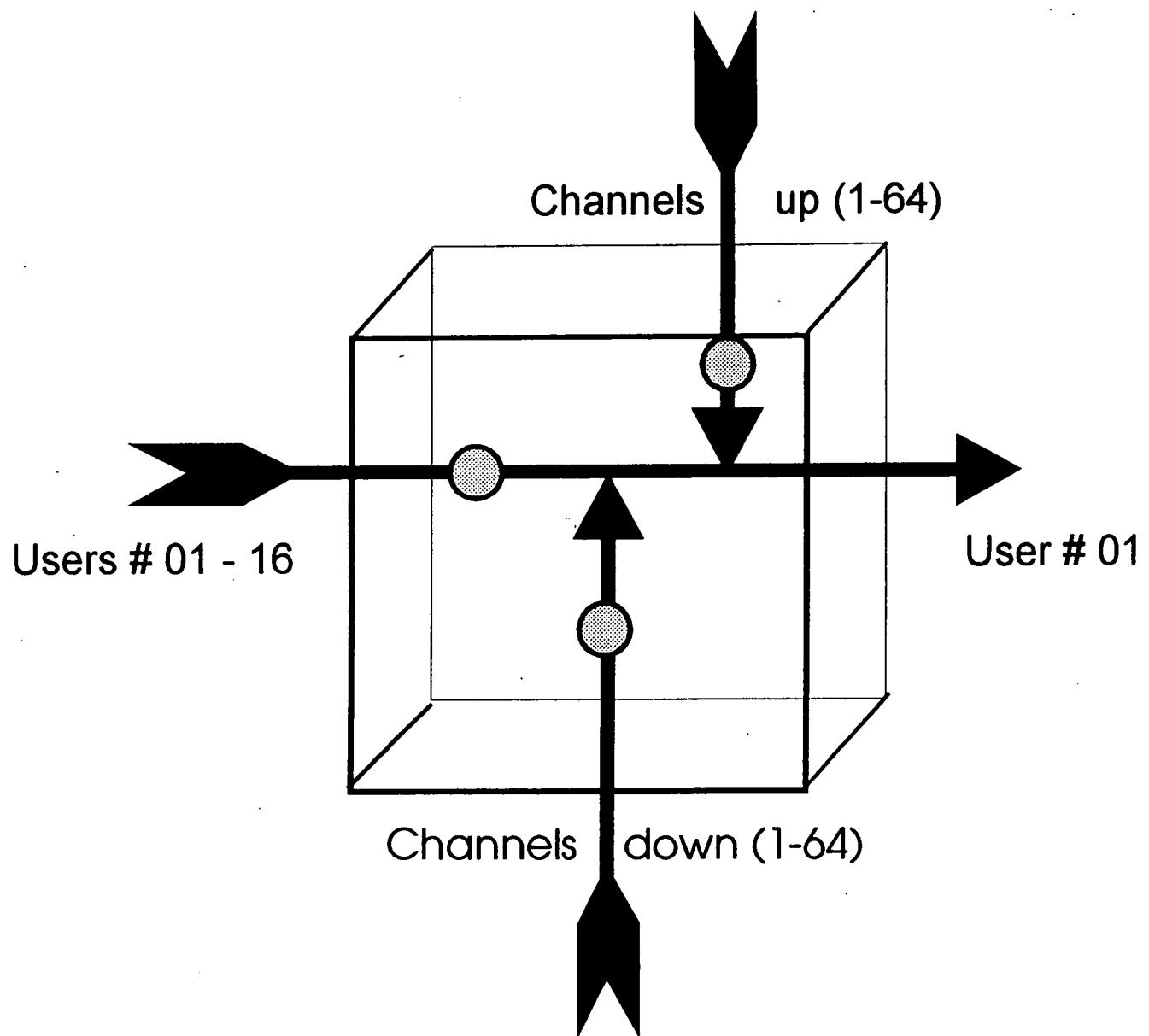
Digitally controlled analog switch (on/off)

Signal path may be interrupted to limit distribution over network at 3 points per crosspoint switch (up, down, across)

Fig. 5

Principle of Channel Segmentation¹⁸ 140230

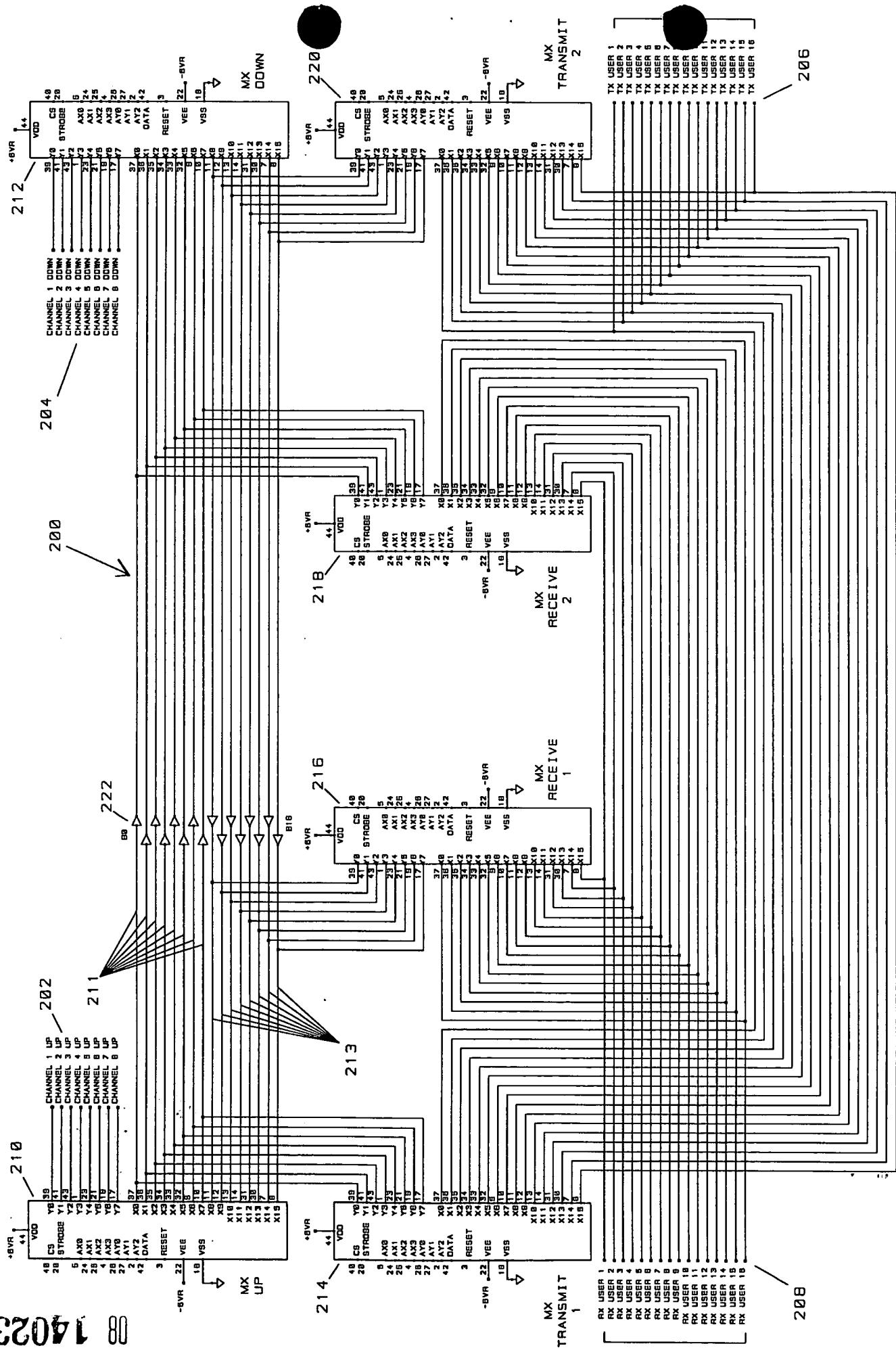
(Receive mode - Rx)



Digitally controlled analog switch (on/off)

Signal path may be interrupted to limit distribution over network at 3 points per crosspoint switch (up, down, across)

Fig. 6



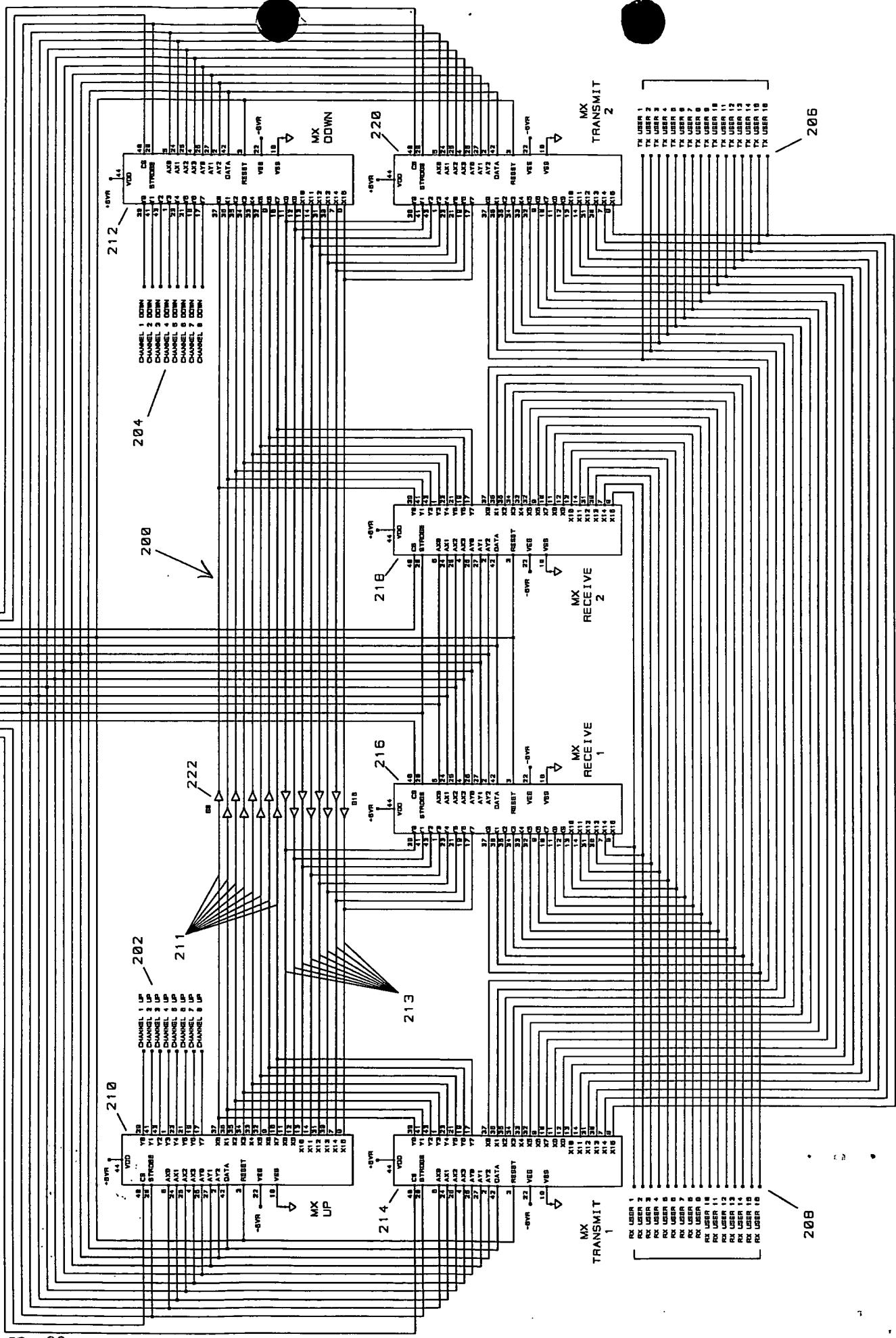
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Fig. 7A

DIGITAL CONTROL
FROM CPU



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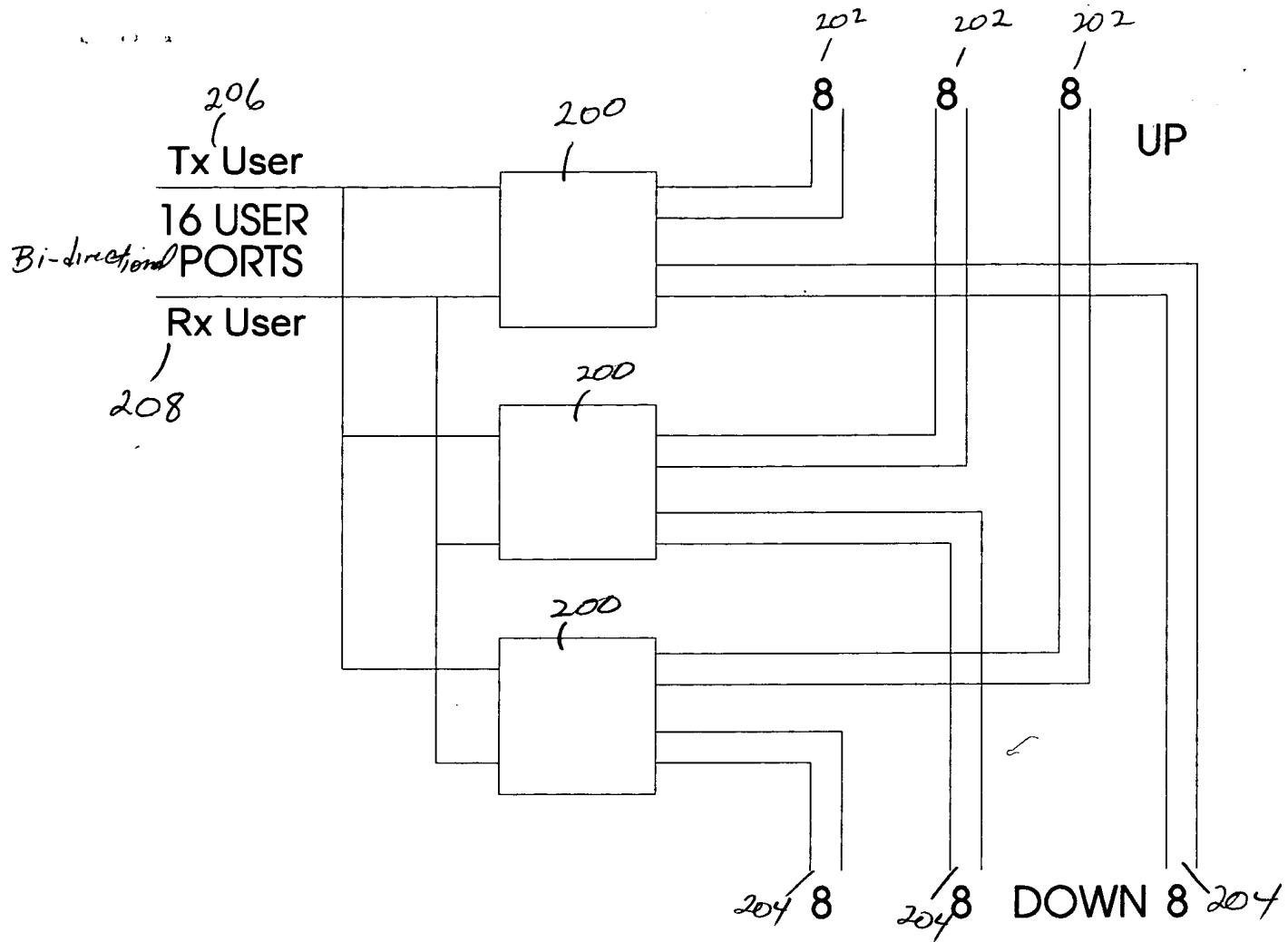


Fig. 8

**TWISTED PAIR TERMINATION MODULE
TRANSMISSION**

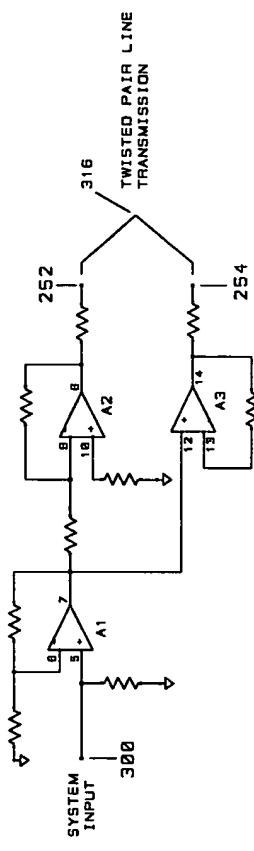
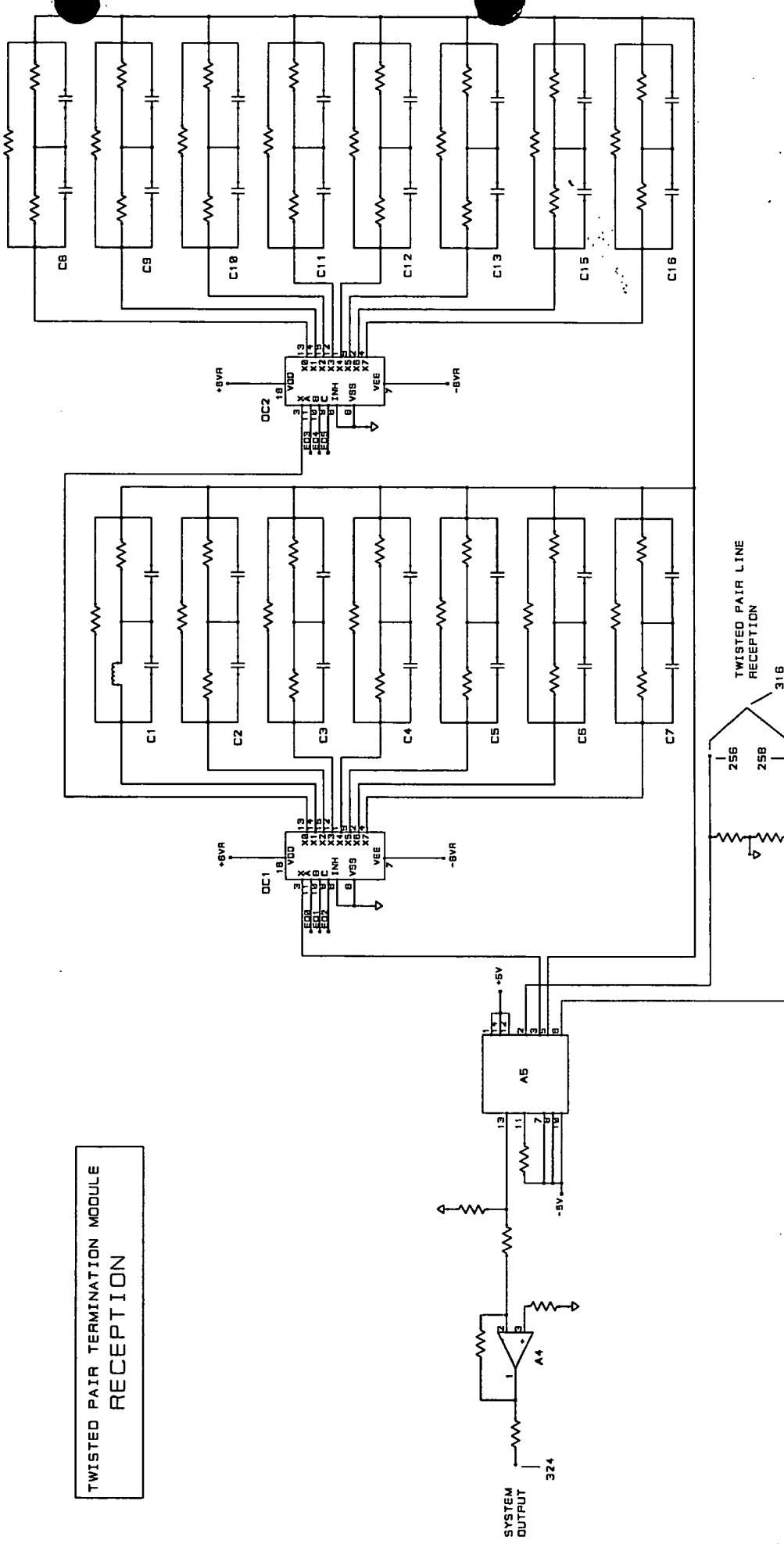


Fig. 9

**TWISTED PAIR TERMINATION MODULE
RECEPTION**



Twisted Pair Termination Module 140230

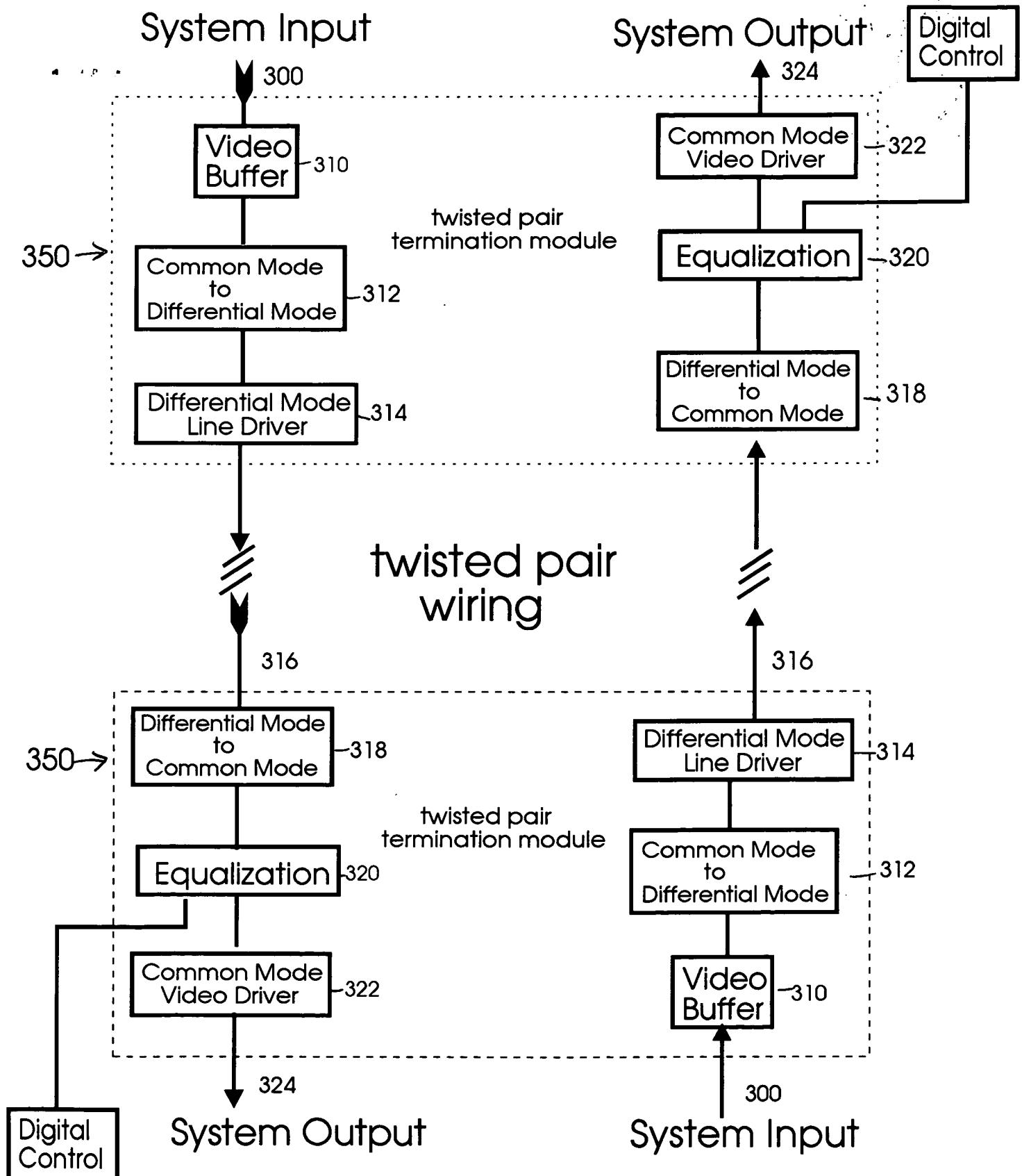


Figure 11

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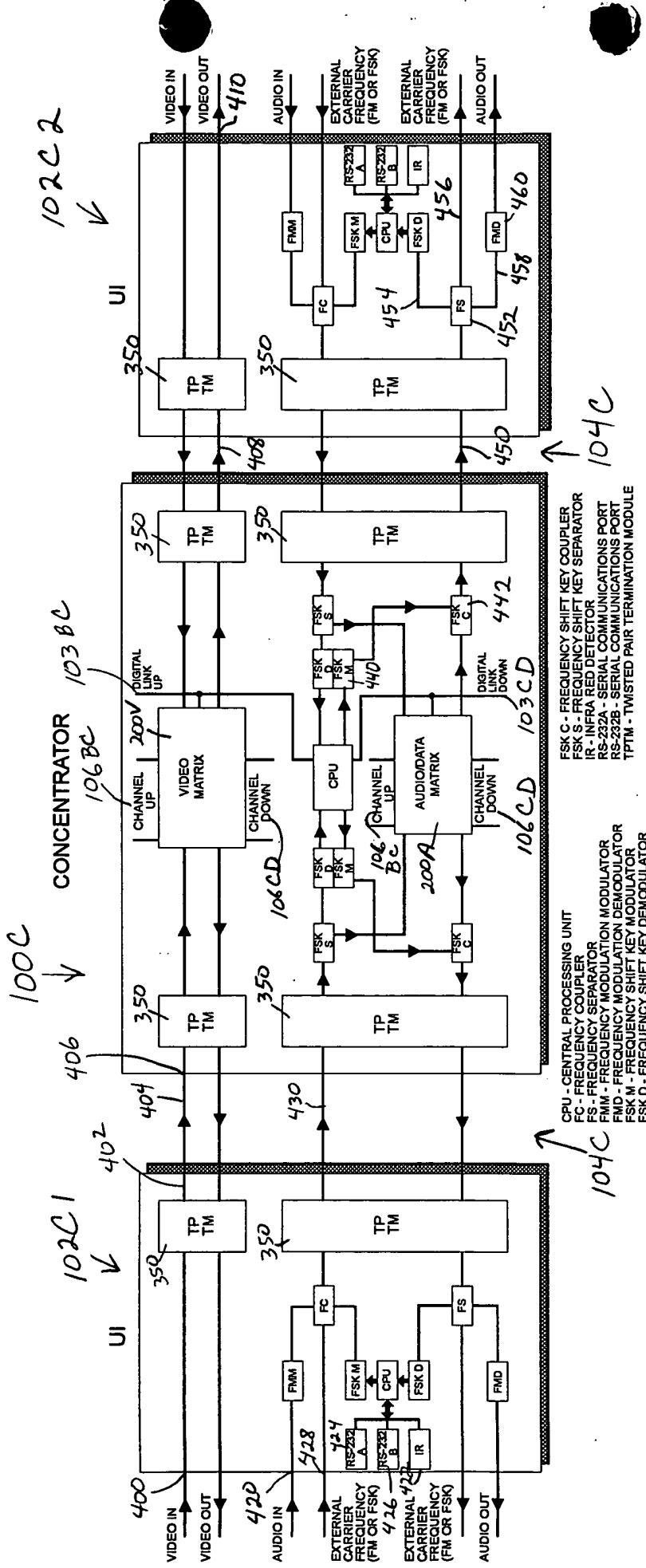
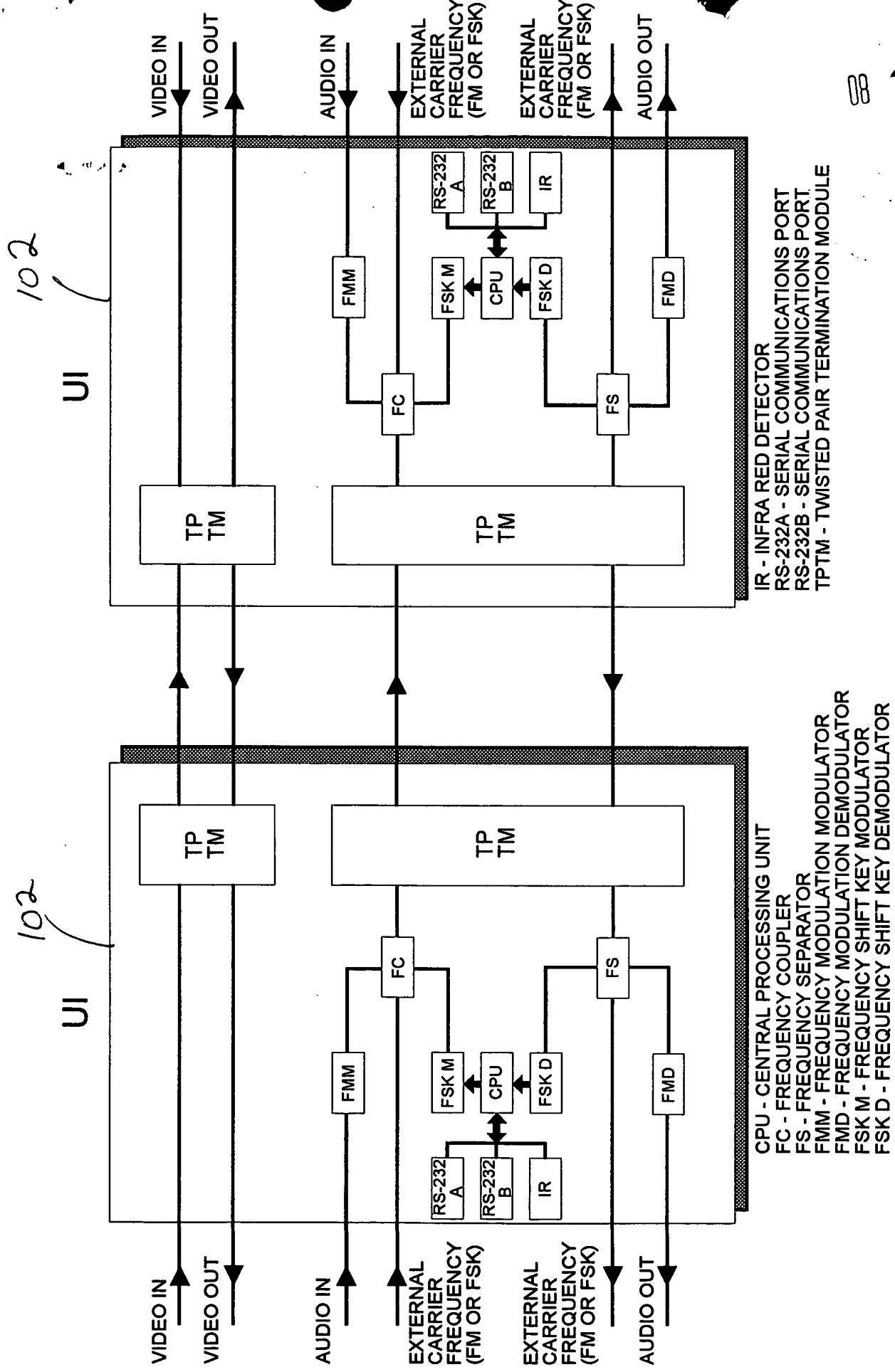


Fig. 12

CPU - CENTRAL PROCESSING UNIT
 FC - FREQUENCY COUPLER
 FS - FREQUENCY SHIFT KEY SEPARATOR
 FMM - FREQUENCY MODULATION MODULATOR
 FMD - FREQUENCY MODULATION DEMODULATOR
 FSK M - FREQUENCY SHIFT KEY MODULATOR
 FSK D - FREQUENCY SHIFT KEY DEMODULATOR



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Fig. 13

CPU - CENTRAL PROCESSING UNIT
 FC - FREQUENCY COUPLER
 FS - FREQUENCY SEPARATOR
 FMM - FREQUENCY MODULATION MODULATOR
 FMD - FREQUENCY MODULATION DEMODULATOR
 FSK M - FREQUENCY SHIFT KEY MODULATOR
 FSK D - FREQUENCY SHIFT KEY DEMODULATOR